DEC 1 0 2004

In the U.S. Patent and Trademark Office

Inventor   Maynard et al.   Paper:

Serial number: 10/786,662   Group: 3736

Filed: 02/25/2004   Examiner: Kremer, Matthew J

Title: Determination of pH Including Hemoglobin Correction

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to Office Action

Responsive to the Office Action mailed 8/11/2004, Applicant submits the following in complete response thereto, and requests reconsideration of the Claims presented.

Amendment

Please amend the Claims and Specification, as shown on the attached sheets.

Fee

After the present Amendment, there are 26 Claims total, of which 5 are independent. Applicant previously paid for 29 total Claims, and 4 independent Claims. Please charge the $88 fee for one additional independent claim, and the $110 fee for a petition for a one month extension of time to respond, and any underpayments, and credit any overpayments, to deposit account 502443.

representing absorbance differences, can then be combined in various ways. *Scharlack* does not teach determination of the concentration of hemoglobin, as required in Claims 1 and 14. Accordingly, *Scharlack* does not teach all the limitations of Claims 1 and 14, and there is no *prima facie* case of anticipation.

Further, the methods of Claims 1 and 14 have the limitation of a step that selects a model that is applicable for samples having the determined hemoglobin concentration. *Sharlack* has no teaching of such a step, not surprising since *Scharlack* does not determine hemoglobin concentration. *Scharlack* has a single model that is cognizant of the pH vectors, and accordingly has no need for determination of hemoglobin concentration, and no need (or teaching) of selection of a model applicable to samples with specific hemoglobin concentrations. Accordingly, *Scharlack* does not teach all the limitations of Claims 1 and 14, and there is no *prima facie* case of anticipation. Applicant submits that Claims 1 and 14, and Claims 2-5, 10-13, 15-18, and 23-26 depending therefrom, are in condition for allowance.

Claims 10 and 23

As discussed above, *Scharlack* does not teach all the limitations of parent Claims 1 and 14. Claims 10 and 23 further recite the limitation to spectral measurements at resolutions of 64cm-1 or finer. *Scharlack* does not teach this resolution. Accordingly, *Scharlack* does not teach or suggest all the limitations of Claims 10 and 23, and there is no *prima facie* case of anticipation. Applicant submits that, even if the parent claims were anticipated by *Scharlack*, Claims 10 and 23 are allowable.
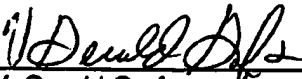
Claims 11 and 24

Applicant has amended Claims 11 and 24 to remove the alternative of noninvasive measurement of perfused tissue. Applicant's invention allows the user of hemoglobin concentration determined in any manner; specifically, in Claims 11 and 24, determined by measurement of blood samples. The hemoglobin concentration can then be used to improve the performance of spectroscopic pH determinations. *Scharlack* does not teach measurement of hemoglobin concentration, and consequently does not teach the use of hemoglobin concentrations determined from blood samples and used in connection with a spectroscopic determination of pH. Accordingly, *Scharlack* does not teach all the limitations of Claims 11 and 24, and there is no *prima facie* case of anticipation. Applicant submits that, even if the parent claims were anticipated by *Scharlack*, Claims 11 and 24 are allowable.

Conclusion

Applicant has responded to each and every rejection and urges that the Claims as presented are in condition for allowance. Applicant requests expeditious processing to issuance.

Respectfully submitted,

V. Gerald Grafe   Dec.7, 2004
Registration Number: 42,599   date
General Counsel
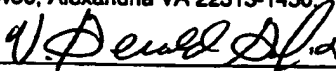InLight Solutions, Inc.
800 Bradbury SE
Albuquerque, NM 87106

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2003

Application or Docket Number
10/786662
P&HO.US2

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	29	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	29 minus 20=	9
INDEPENDENT CLAIMS	4 minus 3 =	1
MULTIPLE DEPENDENT CLAIM PRESENT		☐

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE ☐ **OR OTHER THAN SMALL ENTITY**

RATE	FEE		RATE	FEE
BASIC FEE	385.00	OR	BASIC FEE	770.00
X$ 9=		OR	X$18=	162
X43=		OR	X86=	86
+145=		OR	+290=	0
TOTAL		OR	TOTAL	1018

CLAIMS AS AMENDED - PART II

AMENDMENT A

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	26	Minus	29	—
Independent	5	Minus	4	1
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

SMALL ENTITY OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	800 100
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT B

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total		Minus		
Independent		Minus		
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

RATE / ADDITIONAL FEE OR RATE / ADDITIONAL FEE

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total		Minus		
Independent		Minus		
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.